

FIG. 1

PRIOR ART
SET 3-PARTY PROTOCOL

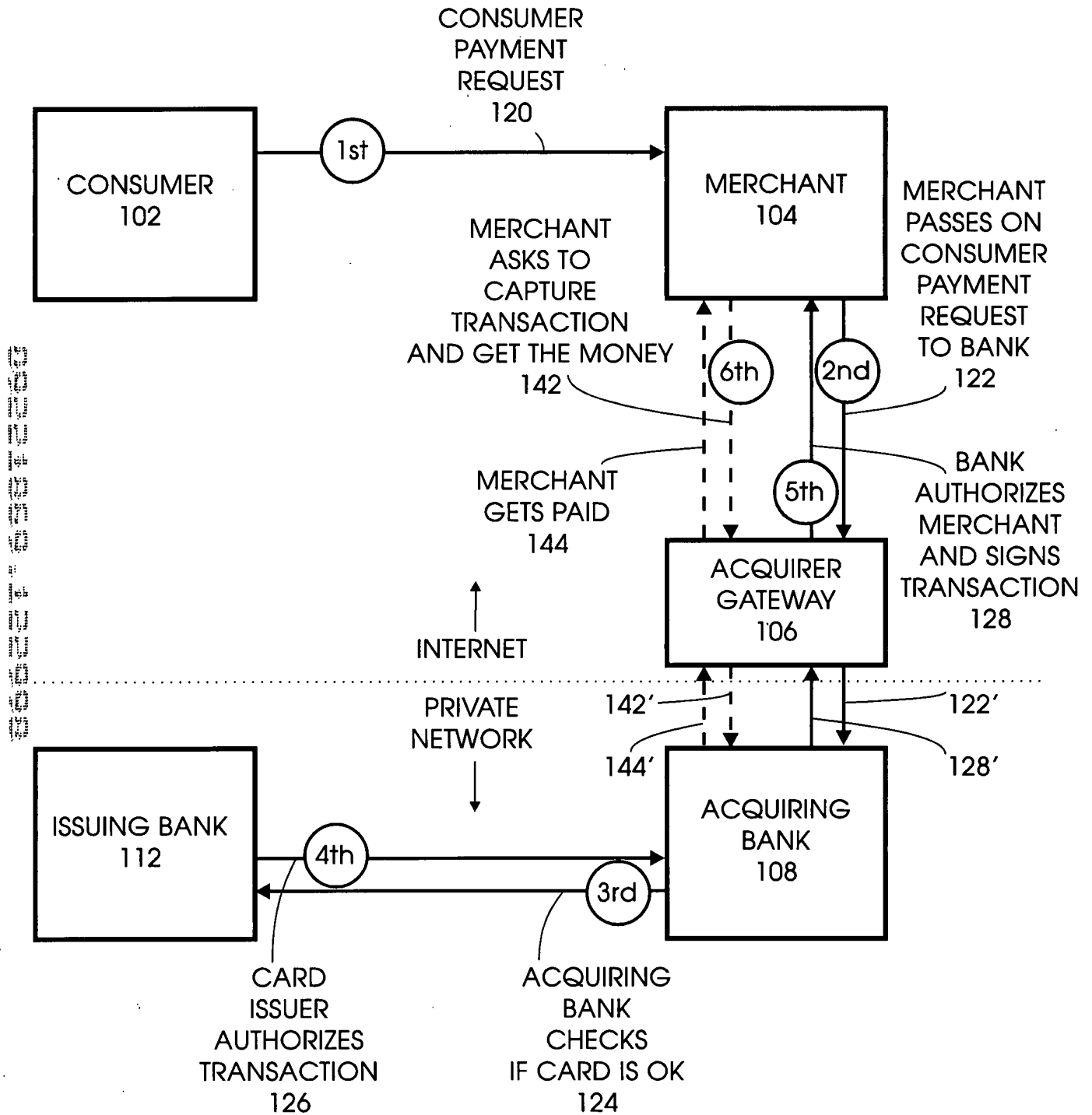


FIG. 2A

4-PARTY PROTOCOL

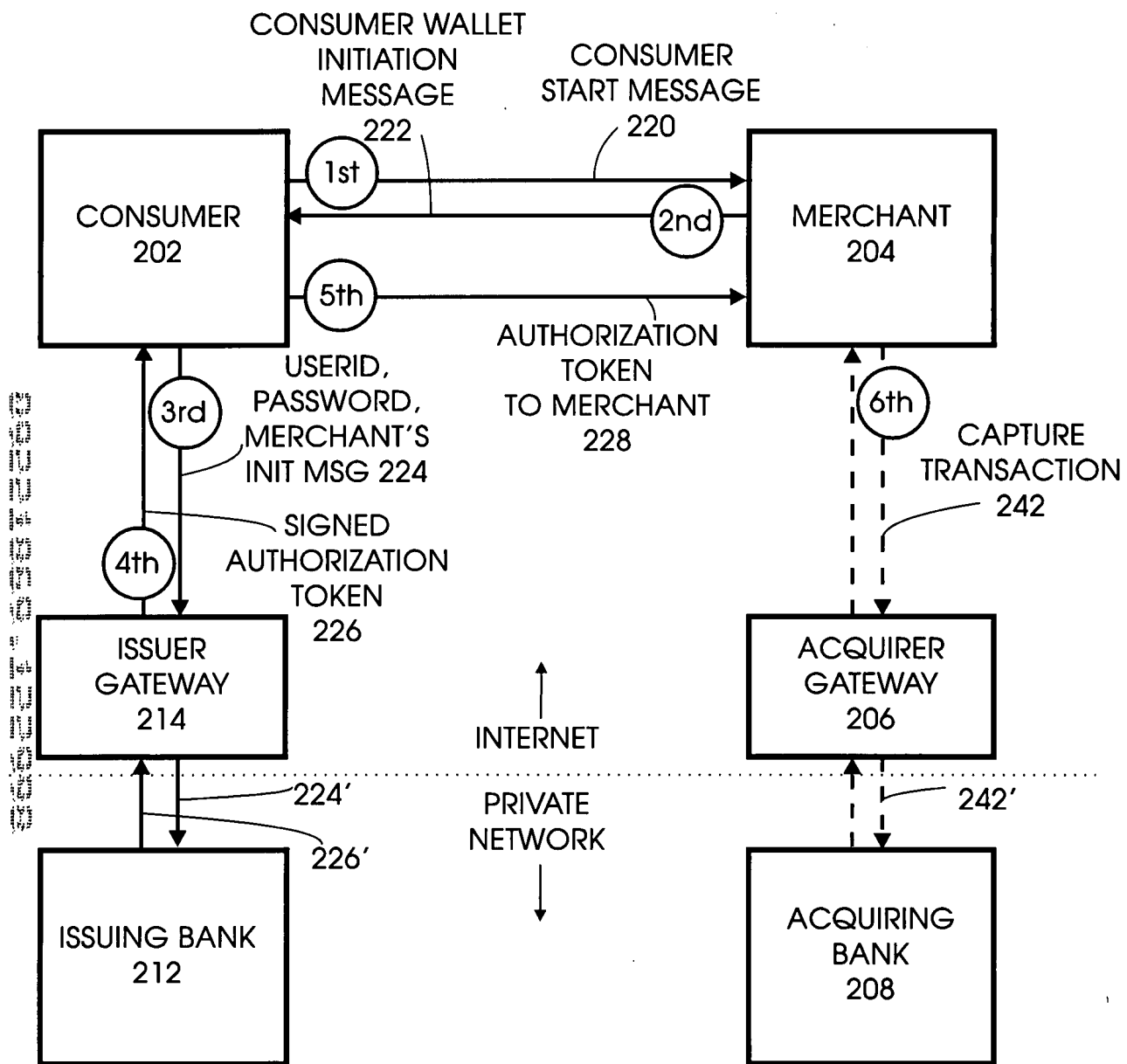


FIG. 2B

4-PARTY PROTOCOL

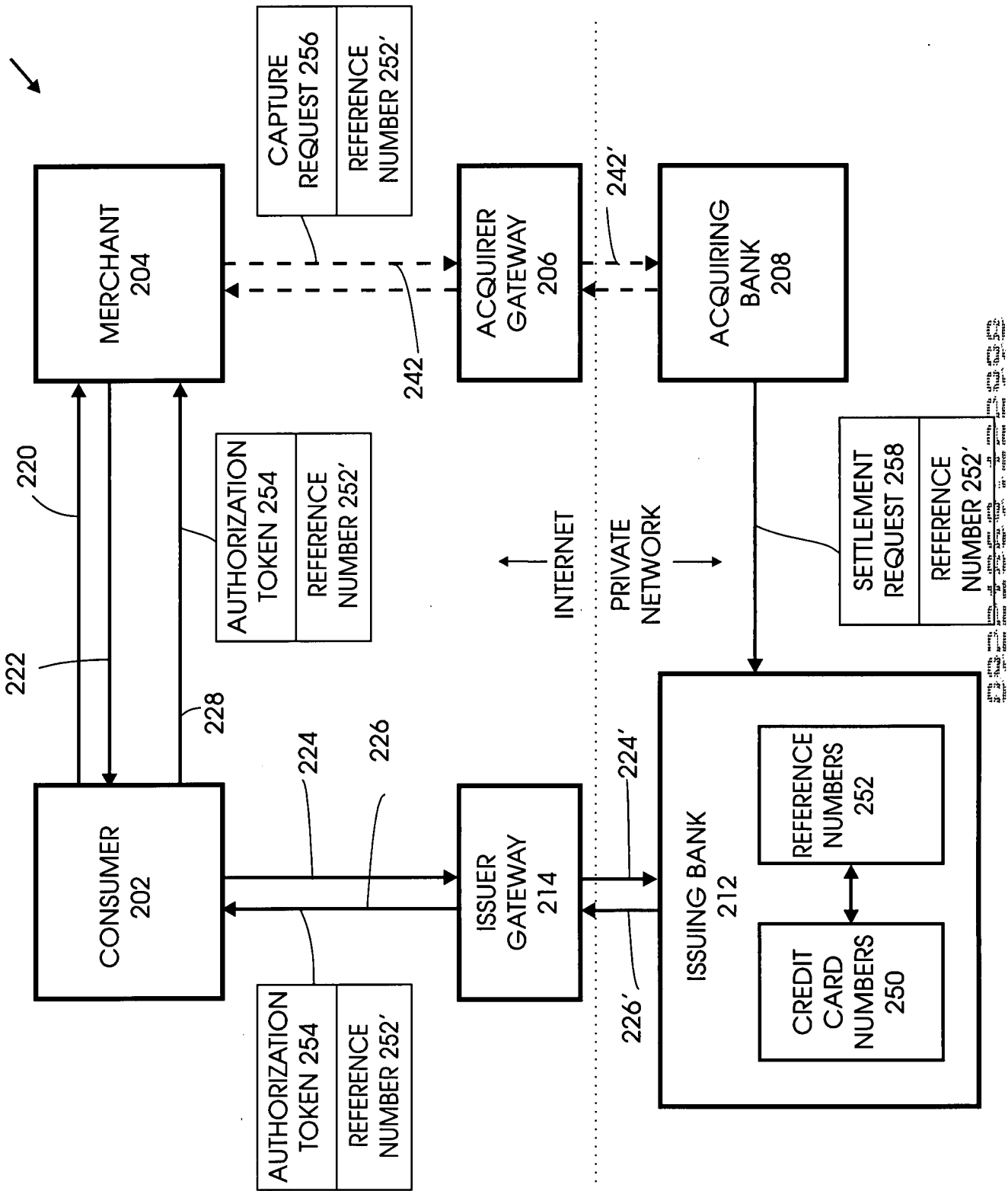


FIG. 2C

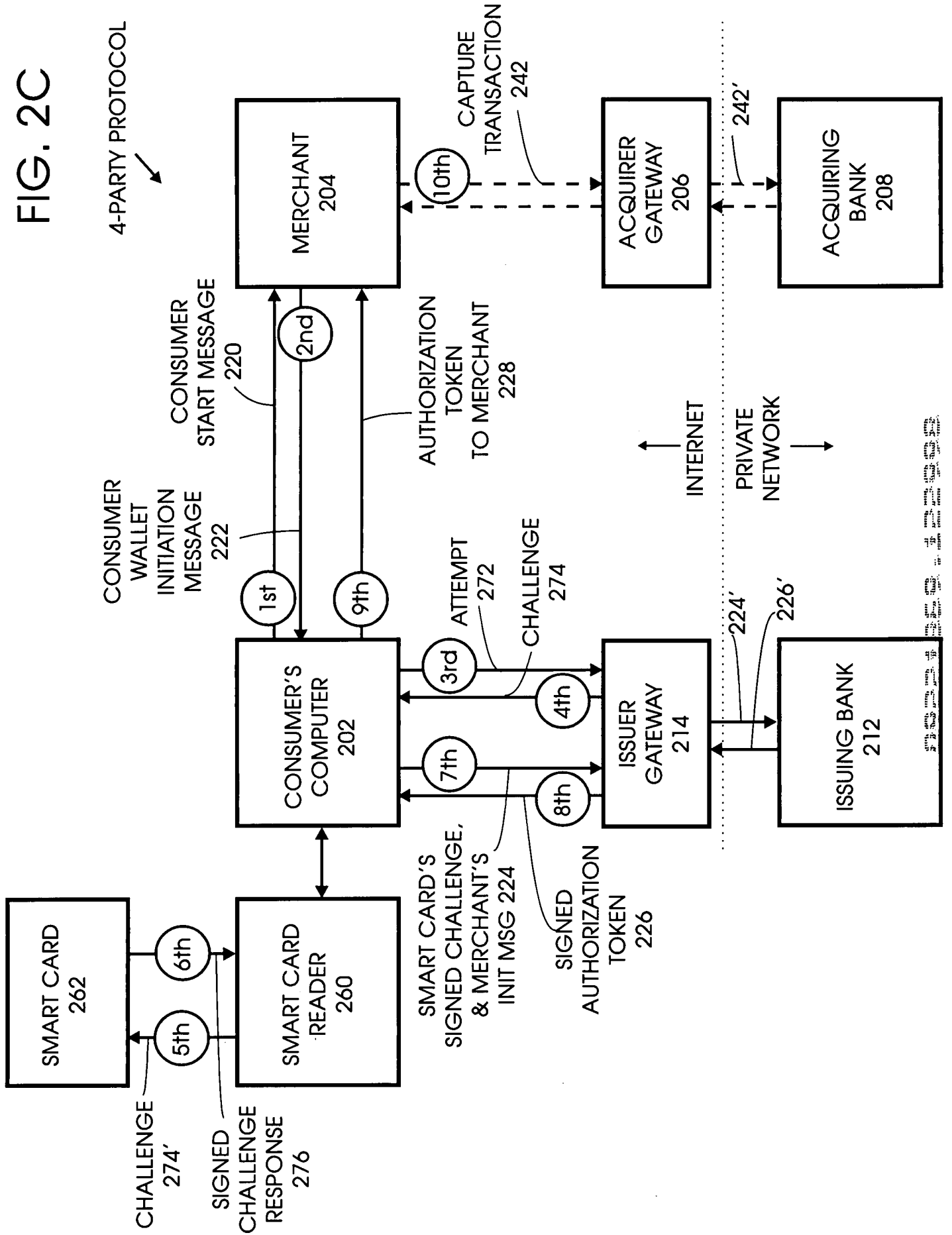


FIG. 3

4-PARTY CREDIT/DEBIT PROTOCOL

300

302

CONSUMER PRESSES "PAY" BUTTON
ON MERCHANT'S HTML PAGE
TO SEND START MESSAGE TO MERCHANT

304

MERCHANT SENDS TO CONSUMER A WALLET INITIATION MESSAGE WITH
PAYMENT AMOUNT, ORDER DESCRIPTION, TIMESTAMP, AND NONCE.
MERCHANT SIGNS MESSAGE AND
INCLUDES DIGITAL CERTIFICATE FROM ACQUIRING BANK.

306

CONSUMER'S WALLET STARTED, CONSUMER LOGS ON,
USERID/PASSWORD AND MERCHANT'S INITIATION MESSAGE
ARE SENT TO ISSUER GATEWAY

308

ISSUER GATEWAY VERIFIES MERCHANT'S SIGNATURE AND
VALIDATES MERCHANT'S DIGITAL CERTIFICATE AND
ACQUIRER'S DIGITAL CERTIFICATE AND CHECKS CONSUMER'S ACCOUNT

310

ISSUER GATEWAY AUTHORIZES PAYMENT VIA ISSUER'S PAYMENT CARD
PROCESSING SYSTEM AND SENDS TO CONSUMER'S WALLET:
A SIGNED AUTHORIZATION TOKEN AND ISSUER'S CERTIFICATE, WITH
WALLET INITIATION MESSAGE AND REFERENCE TO CONSUMER'S PAYMENT CARD

312

CONSUMER'S WALLET FORWARDS
THE AUTHORIZATION TOKEN TO THE MERCHANT.

314

MERCHANT SUBMITS THE AUTHORIZATION TOKEN
IN A CAPTURE REQUEST TO ACQUIRER BANK

316

ACQUIRER BANK SETTLES WITH ISSUER BANK

FIG. 4

4-PARTY PROTOCOL
VARIATION

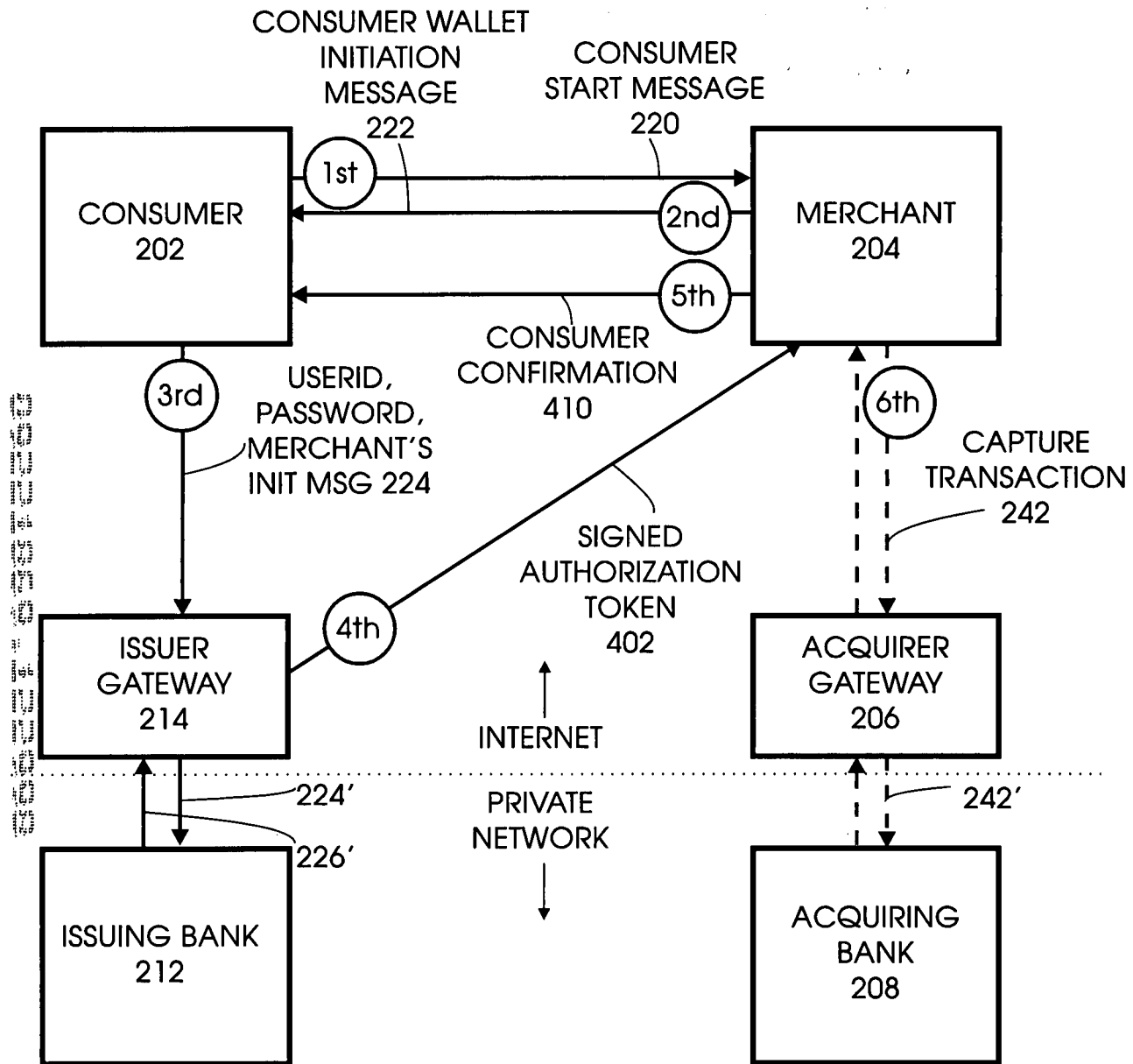


FIG. 5

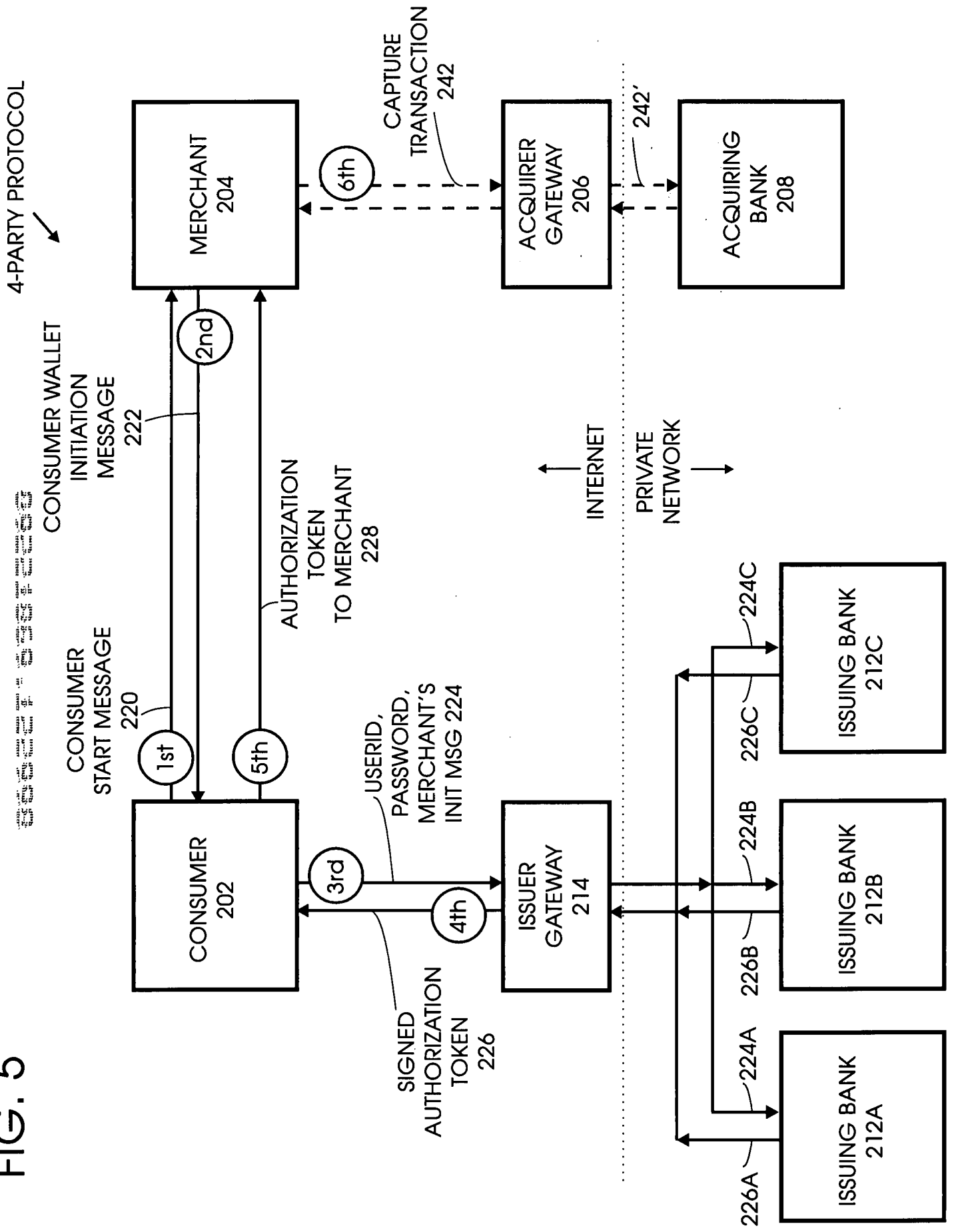


FIG. 6

4-PARTY PROTOCOL

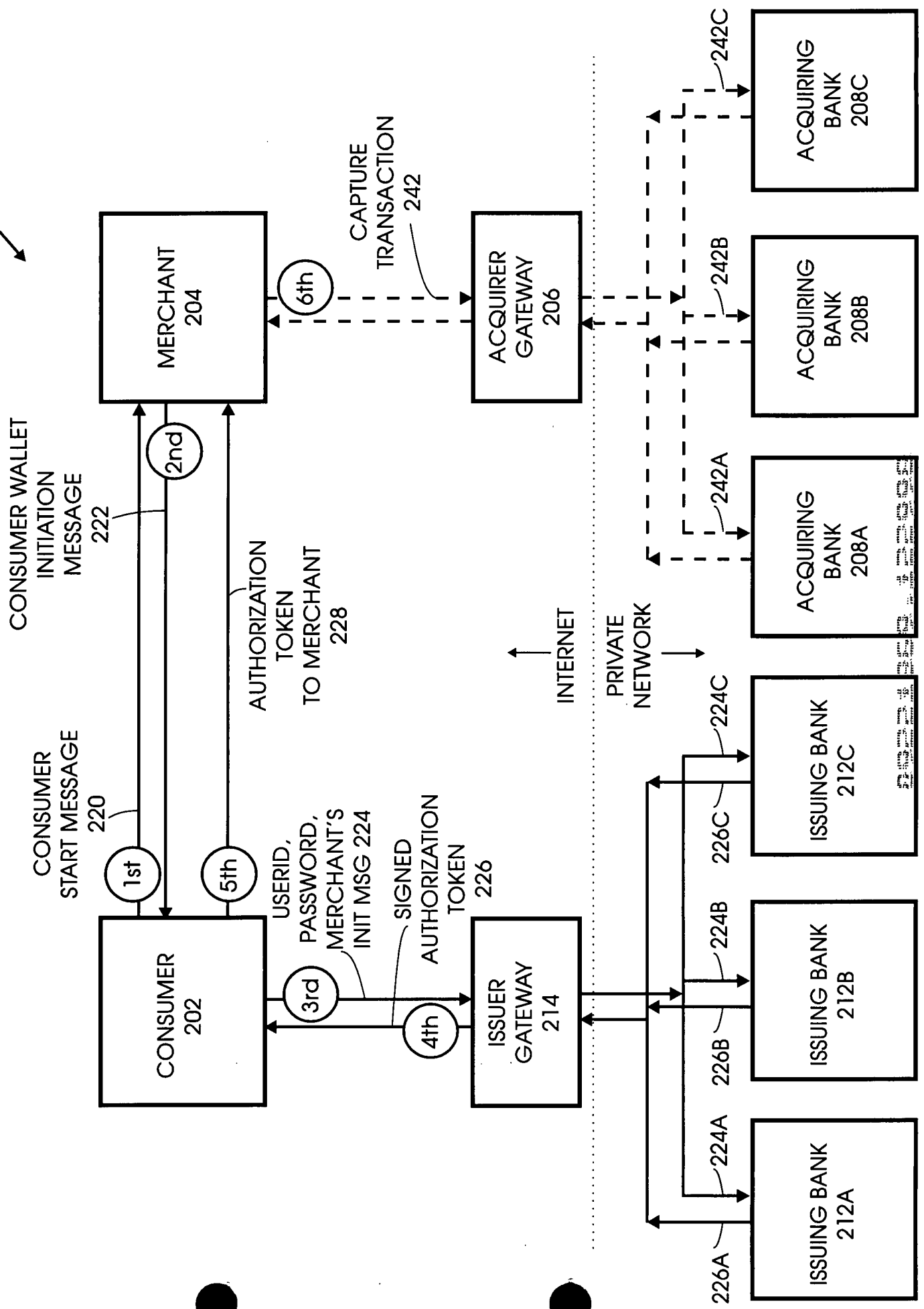
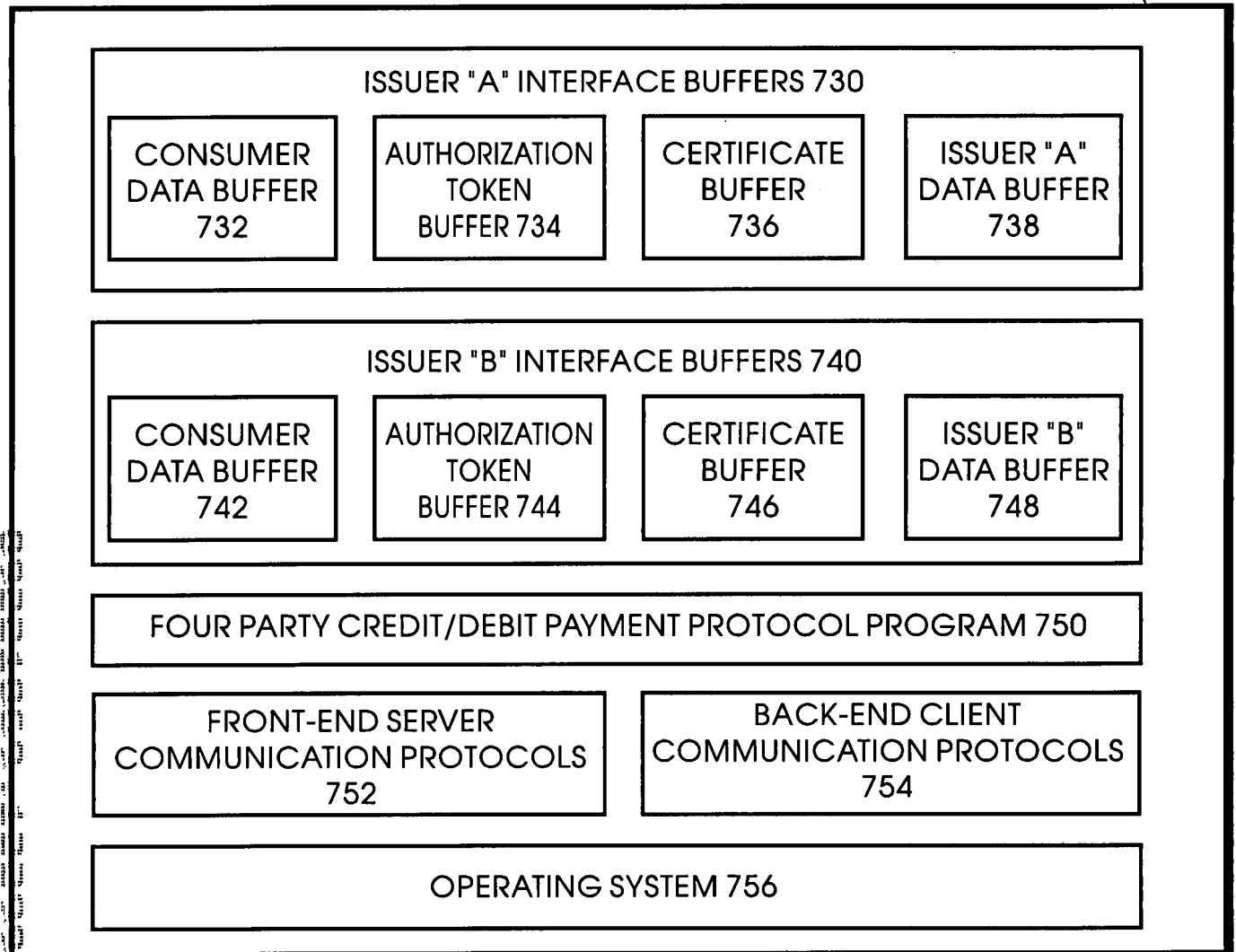


FIG. 7

ISSUER GATEWAY PROCESSOR 700

MEMORY 702



BUS 704

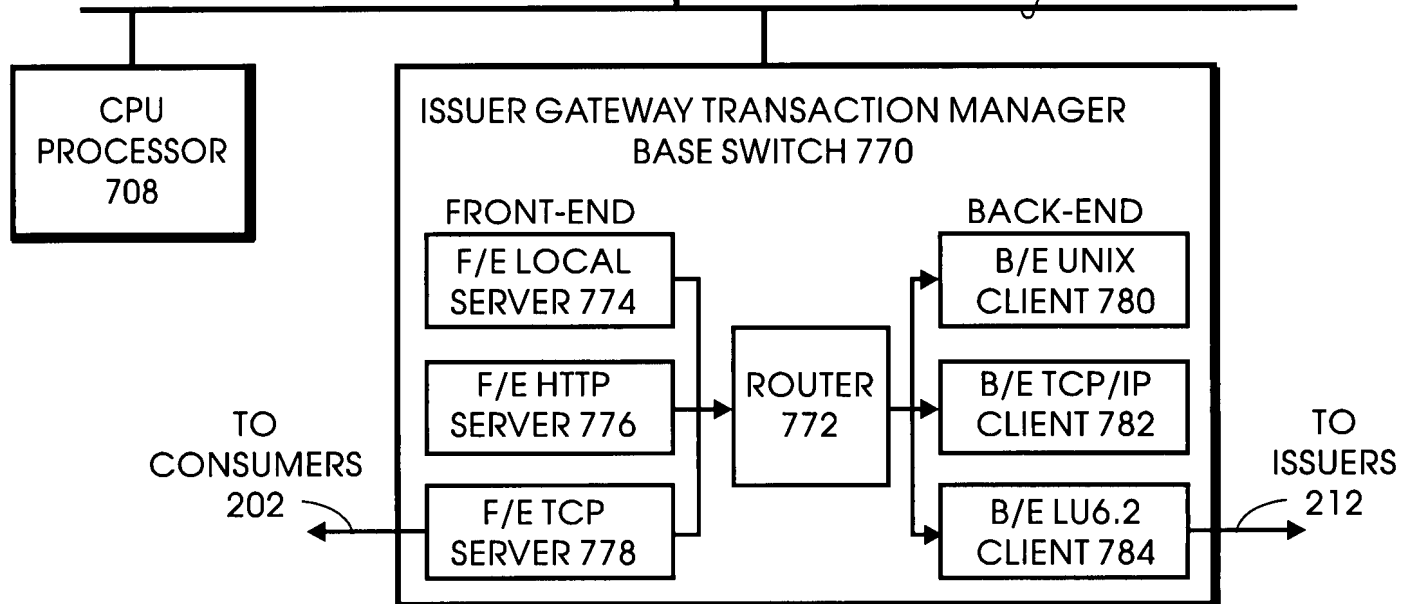


FIG. 8

ISSUER GATEWAY PROCESS
800

